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 Marcus Magnor, Marc Pollefeys, German Cheung, Wojciech Matusik, Christ July 2005 **ACM SIGGRAPH 2005 Courses SIGGRAPH '05**


Publisher: ACM Press

Full text available:  [pdf\(5.15 MB\)](#) Additional Information: [full citation](#)


13 [Proceedings of the SIGNUM conference on the programming envirc of numerical software](#)

 March 1979 **ACM SIGNUM Newsletter**, Volume 14 Issue 1


Publisher: ACM Press

Full text available:  [pdf\(5.02 MB\)](#) Additional Information: [full citation](#)

14 [Low power signal processing architectures for network microsensor](#)

 Michael J. Dong, K. Geoffrey Yung, Wiliam J. Kaiser August 1997 **Proceedings of the 1997 international symposium o and design ISLPED '97**

Publisher: ACM Press

Full text available:  [pdf\(613.09 KB\)](#) Additional Information: [full citation](#)

15 [A two-layer library-based approach to synthesis of analog systems 1 specifications](#)

 Alex Doboli, Nagu Dhanwada, Adrian Nunez-Aldana, Ranga Vemuri April 2004 **ACM Transactions on Design Automation of Electronic** : Volume 9 Issue 2

Publisher: ACM Press

Full text available:  [pdf\(658.00 KB\)](#) Additional Information: [full citation](#)

KB)citings, inde

This paper presents a synthesis methodology for analog systems description language. Synthesis produces net-lists of analog components that are sized so that specified objectives (like AC response, signal to noise ratio) are optimized. The gap between abstract specifications and implementation is bridged by a layered methodology. The first layer is architecture generation. The second layer is synthesis and constraint ...

Keywords: Analog synthesis, VHDL-AMS, branch-and-bound, genetic algorithm, estimation

16 Experiments with the M & N tree-searching program



James R. Slagle, John K. Dixon

March 1970 **Communications of the ACM**, Volume 13 Issue 3

Publisher: ACM Press

Full text available: pdf(896.52 KB) Additional Information: full citation, citings

The M & N procedure is an improvement to the mini-max backing-up procedure for computer programs for game-playing and other purposes. It is based on the idea that it is desirable to have many options when making decisions in the face of uncertainty. The procedure assigns to a MAX (MIN) node the value of the highest (lowest) child. The M & N procedure assigns to a MAX (MIN) node some function of the (lowest) valued child and the ...

Keywords: LISP, artificial intelligence, backing-up procedures, decision heuristic program, kalah, min-max backing-up procedure, tree searching

17 High dynamic range imaging



Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 **ACM SIGGRAPH 2004 Course Notes SIGGRAPH '04**


Publisher: ACM Press

Full text available: pdf(20.22 MB) Additional Information: full citation, citings


Current display devices can display only a limited range of contrast and color. The main reasons for this are that most image acquisition, processing, and display technology is limited to eight bits per color channel. This course outlines recent advances in high dynamic range imaging, from capture to display, that remove this restriction, thereby enabling ...

color gamut and dynamic range of the original scene rather than the lim
current monitor ...

18 Tutorial: abstraction in numerical methods

 Gerald Jay Sussman, Matthew Halfant
January 1988 **Proceedings of the 1988 ACM conference on LISP and
programming LFP '88**

Publisher: ACM Press


Full text available:  [pdf\(673.99 KB\)](#) Additional Information: [full citation](#),
[citations](#), [index](#)

We illustrate how the liberal use of high-order procedural abstractions a
to express some of the vocabulary and methods of numerical analysis. A
toolbox encapsulating the technique of Richardson extrapolation, and w
problems of numerical integration and differentiation. By separating the
extrapolation from its use in particular circumstances we indicate how n
written that exh ...

19 BIST and production testing of ADCs using imprecise stimulus

 Kumar Parthasarathy, Turker Kuyel, Dana Price, Le Jin, Degang Chen, Rar
October 2003 **ACM Transactions on Design Automation of Electro**
Volume 8 Issue 4

Publisher: ACM Press

Full text available:  [pdf\(500.33 KB\)](#) Additional Information: [full citation](#),
[index terms](#)


A new approach for testing mixed-signal circuits based upon using impr
Unlike most existing Built-In Self-Test (BIST) and production test appro
excitation signals that are at least 3 bits or more linear than the Device
proposed approach can work with stimuli that are several bits less linea
dramatically reduces the requirements on stimulus generation for BIST
potential for using inexpe ...

Keywords: ADC linearity, Analog and mixed-signal testing, built-in self
measurement, imprecision stimulus, production test

20 Systems & applications II: Real-time eye detection and tracking und conditions

 Zhiwei Zhu, Kikuo Fujimura, Qiang Ji
March 2002 **Proceedings of the 2002 symposium on Eye tracking
ETRA '02**

Publisher: ACM Press

Full text available:  [pdf\(602.92 KB\)](#) Additional Information: [full citation](#), [citations](#), [index](#)

Non-intrusive methods based on active remote IR illumination for eye tracking in many applications of vision-based man-machine interaction. One problem with these methods is their sensitivity to lighting condition change. This tends to limit the application. In this paper, we present a new real-time eye detection algorithm that works under variable and realistic lighting conditions. Based on correlation effect results ...

Keywords: Eye Tracking, Kalman Filter, Mean Shift, Support Vector Machine

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1 [The HiBall Tracker: high-performance wide-area tracking for virtual environments](#)



Greg Welch, Gary Bishop, Leandra Vicci, Stephen Brumback, Kurtis Keller,
December 1999 **Proceedings of the ACM symposium on Virtual reality technology VRST '99**

Publisher: ACM Press

 Full text available: [pdf\(2.01 MB\)](#)

 Additional Information: [full citation](#), [citations](#), [index](#)

Our HiBall Tracking System generates over 2000 head-pose estimates per second with one millisecond of latency, and less than 0.5 millimeters and 0.02 degree orientation noise, everywhere in a 4.5 by 8.5 meter room. The system is accurate and robust, enabling VR applications and experiments that previously were even impossible. Previously we published descriptions of only the Kalman filter approach that ...

Keywords: Kalman filter, autocalibration, calibration, delay, latency, orientation, tracking, virtual environments


2 [A sigma-delta modulation based BIST scheme for mixed-signal circuits](#)




Jiun-Lang Huang, Kwang-Ting Cheng

January 2000 **Proceedings of the 2000 conference on Asia South Pacific Design Automation ASP-DAC '00**



Publisher: ACM Press

Full text available:  [pdf\(117.31 KB\)](#) Additional Information: [full citation, terms](#)

3 A BIST scheme for on-chip ADC and DAC testing

 Jiun-Lang Huang, Chee-Kian Ong, Kwang-Ting Cheng
January 2000 **Proceedings of the conference on Design, automation and test in Europe**
DATE '00

Publisher: ACM Press


Full text available:  [pdf\(114.67 KB\)](#)  Additional Information: [full citation, terms](#)
[Publisher Site](#)

4 Wireless telecom silicon integration: analog design for radio, baseband and spectrum

J. Sevenhans, D. Haspeslagh, J. Wenin


January 1998 **Wireless Networks**, Volume 4 Issue 1

Publisher: Kluwer Academic Publishers



Full text available:  [pdf\(324.74 KB\)](#) Additional Information: [full citation, citations, index](#)

The application today, pushing analog design for CMOS and RF-bipolar is definitely the mobile radio telephony. New telecom systems like GSM, PDC, GPRS, the loop...are all developing very rapidly and will enable us very soon to have a telephone network with full coverage for your car, as well as in your kitchen and desk. In Europe the major telecom companies have worked together to develop a standard for cellular mobile communications.

5 Detection of defective sensor elements using $\Sigma\Delta$ -modulation and a

 D. Weiler, O. Machul, D. Hammerschmidt, B. J. Hosticka
January 2000 **Proceedings of the conference on Design, automation and test in Europe**
DATE '00

Publisher: ACM Press

Full text available:  [pdf\(88.57 KB\)](#)  Additional Information: [full citation, terms](#)
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6 Theory of PLL fractional-N frequency synthesizers

A. Marques, M. Steyaert, W. Sansen


January 1998 **Wireless Networks**, Volume 4 Issue 1

Publisher: Kluwer Academic Publishers

Full text available:  [pdf\(482.69 KB\)](#) Additional Information: [full citation](#), [index terms](#)

This paper presents an overview of the evolution of frequency synthesizer loops (PLLs). The main limitations of the digital PLLs are described, and of using fractional-N techniques is justified. The origin of the typical spurious sidelobes of the synthesized frequency is explained. It is shown how to suppress noise lines by using digital $\Delta\Sigma$ modulators to control the frequency. Finally ...

7 An analysis of selected computer interchange color spaces

 James M. Kasson, Wil Plouffe

October 1992 **ACM Transactions on Graphics (TOG)**, Volume 11 Issue 3

Publisher: ACM Press

Full text available:  [pdf\(8.77 MB\)](#) Additional Information: [full citation](#), [citations](#), [index](#)

Important standards for device-independent color allow many different freedoms. These standards obliges users to choose the color space in which to work. A device-independent interchange color space must exhibit an exact colorimetric color representation, ability to encode all visible colors, with given accuracy, and low computational cost for transforms to and from device spaces. The performance of CIE 1931 ...

Keywords: CIE 1931 XYZ, CIELAB, CIELUV, SMPTE-C RGB, YCbCr, YES spaces, device-independent color, quantization

8 Video-based rendering: Video-based rendering

 Marcus Magnor, Marc Pollefeys, German Cheung, Wojciech Matusik, Christof Buehler
July 2005 **ACM SIGGRAPH 2005 Courses SIGGRAPH '05**

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- 9 Proceedings of the SIGNUM conference on the programming envirc
of numerical software



March 1979 **ACM SIGNUM Newsletter**, Volume 14 Issue 1

Publisher: ACM Press

Full text available: pdf(5.02

MB)

Additional Information: full citation

- 10 A design strategy for low-voltage low-power continuous-time sigma-
F. Gerfers, Y. Manoli

March 2001 **Proceedings of the conference on Design, automation**
DATE '01

Publisher: IEEE Press

Full text available: pdf(619.81

KB)

Additional Information: full citation,
terms

- 11 Pac-bayesian generalisation error bounds for gaussian process clas
Matthias Seeger

March 2003 **The Journal of Machine Learning Research**, Volume 3

Publisher: MIT Press

Full text available: pdf(487.11

KB)

Additional Information: full citation,
citings, inde

Approximate Bayesian Gaussian process (GP) classification techniques and learning methods, similar in appearance and performance to support vector simple probabilistic models, they render interpretable results and can be frameworks for model selection, feature selection, etc. In this paper, by theorem of McAllester (1999a), we prove distribution-free generalisation range of approxima ...

Keywords: Bayesian learning, Gaussian processes, Gibbs classifier, Kernel Bayesian framework, convex duality, generalisation error bounds, spars

12 High dynamic range imaging

Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 ACM SIGGRAPH 2004 Course Notes SIGGRAPH '04**Publisher: ACM Press**

Full text available: pdf(20.22 MB)

Additional Information: full citation,

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13 Low-voltage low-power switched-current circuits and systems

Nianxiong Tan, S. Eriksson

March 1995 Proceedings of the 1995 European conference on Design**Publisher: IEEE Computer Society**

Full text available: pdf(642.50 KB)

Publisher
SiteAdditional Information: full citation,


This paper presents low-voltage low-power switched-current circuits and their configuration and common-mode feedforward are the essence. A delay insensitive oversampling A/D converter, and chopper-stabilized oversampling A/D converter are designed and implemented. Measurement results are presented as well.

Keywords: CMOS IC, CMOS analogue integrated circuits, LV switched-current circuits, analogue processing circuits, analogue storage, analogue-digital conversion, chopper-stabilized oversampling ADC, class AB configuration, common-mode feedforward, low-power switched-current circuits, oversampling A/D converter, switched current circuits

14 Tutorial: abstraction in numerical methods


Gerald Jay Sussman, Matthew Halfant

January 1988 Proceedings of the 1988 ACM conference on LISP and functional programming LFP '88**Publisher: ACM Press**


Full text available:  [pdf\(673.99 KB\)](#) Additional Information: [full citation](#), [citations](#), [index terms](#)

We illustrate how the liberal use of high-order procedural abstractions can be used to express some of the vocabulary and methods of numerical analysis. A new toolbox encapsulating the technique of Richardson extrapolation, and various problems of numerical integration and differentiation. By separating the extrapolation from its use in particular circumstances we indicate how it can be written that exhibits ...

15 BIST and production testing of ADCs using imprecise stimulus

 Kumar Parthasarathy, Turker Kuyel, Dana Price, Le Jin, Degang Chen, Rar
October 2003 **ACM Transactions on Design Automation of Electronic Systems**
Volume 8 Issue 4

Publisher: ACM Press

Full text available:  [pdf\(500.33 KB\)](#) Additional Information: [full citation](#), [index terms](#)


A new approach for testing mixed-signal circuits based upon using imprecise stimulus. Unlike most existing Built-In Self-Test (BIST) and production test approaches, the proposed approach can work with stimuli that are several bits less linear than the Device Under Test. This dramatically reduces the requirements on stimulus generation for BIST and has the potential for using inexpensive ...

Keywords: ADC linearity, Analog and mixed-signal testing, built-in self measurement, imprecision stimulus, production test


16 A low power high performance switched-current multiplier

D. M. W. Leenaerts, G. H. M. Joordens, J. A. Hegt
August 1996 **Proceedings of the 1996 international symposium on low power design and design ISLPED '96**

Publisher: IEEE Press


Full text available:  [pdf\(77.12 KB\)](#) Additional Information: [full citation](#), [index terms](#)

17 Low power signal processing architectures for network microsensor

 Michael J. Dong, K. Geoffrey Yung, William J. Kaiser
August 1997 **Proceedings of the 1997 international symposium on low power design and design ISLPED '97**

and design ISLPED '97

Publisher: ACM Press


Full text available:  [pdf\(613.09 KB\)](#) Additional Information: [full citation](#),

18 Session 4B: Rangesum histograms

S. Muthukrishnan, Martin Strauss

January 2003 **Proceedings of the fourteenth annual ACM-SIAM symposium on algorithms SODA '03**

Publisher: Society for Industrial and Applied Mathematics

Full text available:  [pdf\(1.10 MB\)](#) Additional Information: [full citation](#), [citations](#), [index](#)


A *rangesum query* to an array \mathbf{A} is a pair (l, r) of range endpoints, which $l \leq r$ and $1 \leq l, r \leq n$. To compress \mathbf{A} , we consider representing an array \mathbf{A} lossily by \mathbf{H} that is constant on each of a small number of buckets. We then answer *rangesum queries* instead of from \mathbf{A} , i.e., as $\sum_{l \leq i \leq r} \mathbf{H}[i]$. An optimal ...

19 Continuous speech recognition II: Spectral estimation for noise robust

Adoram Erell, Mitch Weintraub

October 1989 **Proceedings of the workshop on Speech and Natural Language**

Publisher: Association for Computational Linguistics

Full text available:  [pdf\(377.73 KB\)](#) Additional Information: [full citation](#), [citations](#)

We present results on the recognition accuracy of a continuous speech recognition system that incorporates a novel noise reduction algorithm. The algorithm uses a minimum mean square error estimation tailored for a filter-bank front-end. It achieves a significant improvement over similar published algorithms by incorporating a model for the filter-bank log-energies, and by attempting to jointly estimate the vector rather than individual coefficients ...

20 Efficient and accurate testing of analog-to-digital converters using orthogonal

K. Arabi, B. Kaminska

March 1997 **Proceedings of the 1997 European conference on Design Automation**

Publisher: IEEE Computer Society

Full text available:  [pdf\(511.01 KB\)](#) Additional Information: [full citation](#),

Publisher Site

This paper describes a practical test approach for analog-to-digital conversion-oscillation-test strategy. The oscillation-test is applied to convert the ADC oscillator. The oscillation frequencies are able to monitor the ADC conversion nonlinearity (DNL) and integral nonlinearity (INL) at each quantization band edge. In this method, no analog stimulus should be supplied and therefore the need for a signal generator is eliminated.

Keywords: A/D convertor, ADC conversion rate, ADC testing, analog-to-digital conversion, differential nonlinearity, digital circuitry, oscillation-test method, quantization band edge

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L4	15	sigma NEAR1 delta second NEAR2 error feedback	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2007/03/29 08:37
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L8	12	sigma NEAR1 delta subtract\$5 NEAR3 second NEAR2 error	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWEN T; IBM_TD B	AND	ON	2007/03/29 08:44
L9	8	sigma NEAR1 delta subtract\$5 NEAR3 second NEAR2 error	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWEN T; IBM_TD B	SAME	ON	2007/03/29 08:44

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L10	4	sigma NEAR1 delta subtract\$5 NEAR3 second NEAR2 error	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWEN T; IBM_TD B	WITH	ON	2007/03/29 08:44
L11	2	sigma NEAR1 delta subtract\$5 NEAR3 second NEAR2 error and l1	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWEN T; IBM_TD B	WITH	ON	2007/03/29 08:47
L12	1	sigma NEAR1 delta subtract\$5 NEAR3 second NEAR2 error filter	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWEN T; IBM_TD B	SAME	ON	2007/03/29 09:02
L13	1	sigma NEAR1 delta subtract\$5 NEAR3 second NEAR2 error filter and l1	US-PGPU B; USPAT; USOCR; EPO; JPO; DERWEN T; IBM_TD B	SAME	ON	2007/03/29 09:02